

"LIFE ON ICE, ANTARCTICA AND MARS"

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"Within our solar system, there are two worlds where rock and ice and chilling winds rule bleak landscapes. Once both were warmer, and rivers wandered through valleys where today the highest temperatures just barely pass the melting point of liquid water. In one of them winter lasts four months of freezing darkness. Upon the other, winter has lasted three billion years or more. Two lands where life had a chance to flourish. Two lands where - at first - it seems no trace of life remains. But one of them is rich in hidden life, though alien and strange. And the other is a planet we yearn to explore with the wisdom gained from discoveries. This is the story of Antarctica and Mars, a courageous and astonishing search for life that has taken humans deep below the icy crust of lakes near Earth's south pole, and given us tools to search for ancient life on the planet Mars."

From LIFE ON ICE, ANTARCTICA AND MARS

The study of the origin of life and the prospects for human exploration of Mars are two themes developed in a new 57-minute film, **Life on Ice, Antarctica and Mars**, produced by the InnerSpace Foundation and WHRO Television for broadcast by PBS. What follows is a brief explanation of the film and how it relates to the future human exploration of space.

The film is about exploration in the traditional sense - Antarctica, diving, living in tents, adventure, risk - and in a not-so-traditional sense - the rationale for sending people to the planet Mars. This film relates directly to the Space Exploration Initiative now under study by NASA and the National Space Council. It educates the viewer about the planet Mars and helps explain the need for pursuing such an initiative, while conveying its inherent excitement. The story line is easy to follow, the photography is spectacular, and the narration is excellent.

"Life on Ice" is also about the study of microbial life forms thriving on the bottom of perpetually ice-covered (up to 18 feet thick) lakes in the dry valleys of Antarctica. The research team featured in the film includes exobiologists Dale Andersen (now with Lockheed Engineering & Sciences Co, in support of the Life Sciences Division at NASA Headquarters); planetary scientist Christopher P. McKay of NASA's Ames Research Center; exobiologist Robert Wharton of the Desert Research Institute in Reno, Nevada (at NASA Headquarters for 1989-91 under the Visiting Senior Scientist program); biologist George Simmons of the faculty of Virginia Tech; planetary geologist Steve Squyres of Cornell University; John D. Rummel, the Exobiology Program Manager for the Life Sciences Division, NASA Headquarters; and Carl Sagan, David Duncan Professor of Astronomy and Space Sciences, and Director of the Laboratory for Planetary Studies at Cornell University.

The film, written by Geoff Haines-Styles and produced by Mark Jenkins, relates Antarctic research to the study of the origins of life and to the question of whether life ever existed on Mars (or anywhere else beyond Earth). The film also shows how the working experience gained by this research team relates to planning for human missions to Mars or other harsh, isolated environments.